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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,934	08/16/2006	Terence Christopher Platt	018872.00161	6136
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EXAMINER				
ZETTL, MARY E				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/553,934

Applicant(s)

PLATT, TERENCE CHRISTOPHER

Examiner

MARY ZETTL

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2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
4a) Of the above claim(s) 1-30 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 31-46 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/3508)
Paper No(s)/Mail Date 5/9/2008 and 9/5/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The use of the phrase "adapted to" in several of the independent claims is noted. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchinson, 69 USPQ 138.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 31-33, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A) in view of Masotti (WO 07/77447 A1).

Regarding claim 31, Gray teaches an edge device for a powered door, comprising an elongate array of infrared transmitter and/or receiver elements (13 and 23; col. 2, lines 54-65, any sensor, i.e. receiver, that is sensitive to the radiation of the emitters), and an array of illuminable elements (12 and 22).

Gray does not disclose expressly each illuminable element being itself elongated in the direction of elongation of the array, and subsequently the illuminable elements being arranged substantially end-to-end.

Masotti teaches a detection apparatus including the use of an elongated light source (1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the illumination sources of Gray elongated as taught by Masotti for the purpose of covering more surface with the illumination source.

Gray does not disclose expressly the array of illumination sources being illuminated when the door is open so as to be visible to persons approaching the door.

Masotti teaches an infrared transmitter and/or receiver element (page 12, line 30) for detection purposes (detect an intruder, page 13, line 10). Masotti also teaches the optical source may be used independently of the optical receiver such to meet specific lighting requirements (page 13, lines 12-16). While Masotti does not specify the presence of an optical source for lighting purposes together with an infrared transmitter and/or receiver it is inferred by the examiner that one of ordinary skill in the art would be motivated to utilize the teachings of Masotti to have both an IR transmitter and/or receiver element and to have an illumination source.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have modified the invention of Gray such that the illumination source was visible to people as taught by Masotti so as to guide people in dimly lit conditions.

Regarding claim 32, Gray teaches infrared elements (13 and 23, receivers) and illuminable elements (12 and 22) being disposed in a common carrier structure (the door, 10 or 20).

Regarding claim 33, Gray teaches an edge device for a powered door, comprising an elongate array of infrared transmitter and/or receiver elements (13 and 23; col. 2, lines 54-65, any sensor, i.e. receiver, that is sensitive to the radiation of the emitters), and an array of illuminable elements (12 and 22); the infrared elements (13 and 23, receivers) and illuminable elements (12 and 22) being disposed in a common carrier structure (the door, 10 or 20).

Gray does not disclose expressly each illuminable element being itself elongated in the direction of elongation of the array, and subsequently the illuminable elements being arranged substantially end-to-end.

Masotti teaches a detection apparatus including the use of an elongated light source (1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the illumination sources of Gray elongated as taught by Masotti for the purpose of covering more surface with the illumination source.

Gray does not disclose expressly the array of illumination sources being illuminated when the door is open so as to be visible to persons approaching the door.

Masotti teaches an infrared transmitter and/or receiver element (page 12, line 30) for detection purposes (detect an intruder, page 13, line 10). Masotti also teaches the optical source may be used independently of the optical receiver such to meet specific lighting requirements (page 13, lines 12-16). While Masotti does not specify the presence of an optical source for lighting purposes together with an infrared transmitter and/or receiver it is inferred by the examiner that one of ordinary skill in the art would be motivated to utilize the teachings of Masotti to have both an IR transmitter and/or receiver element and to have an illumination source.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have modified the invention of Gray such that the illumination source was visible to people as taught by Masotti so as to guide people in dimly lit conditions.

Regarding claims 44 and 45, Gray teaches the edge device being configured for use on an elevator door (col. 2, line 40).

3. Claims 34-38, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A) and Masotti (WO 007/77447 A1) and further in view of Picado (US 5,149,921 A).

Regarding claims 34 and 35, Gray and Masotti do not disclose expressly the common carrier structure being a channel member.

Picado teaches an infrared intrusion detection system including a common carrier structure (64; Figure 4A) for emitters and receivers (col. 8, lines 38-65) that is a channel member (Figure 4A).

At the time, the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray and Masotti such that the common carrier structure was a channel member as taught by Picado so as to offer additional protection to the illuminating elements and the transmitters/receivers.

Regarding claim 36, Gray teaches the at least one illuminable element (12 and 22) being a series of illuminable elements (Figure 1).

Regarding claim 37, Gray, Masotti, and Picado do not disclose expressly the infrared elements being vertically interleaved with the series of illuminable elements along the length of the array, each adjacent pair of the illuminable elements being separated by a respective infrared element.

Shifting the location of an element would not have modified the operation of the device. In re Japkse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the illuminable elements and the respective infrared elements of Gray, Masotti, and Picado, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the illuminable elements and the respective infrared elements so as to cover more detection array and thus create a more effective and safer device.

Regarding claim 38, Gray teaches the infrared elements (13) extend vertically on a first side of the device, and the series of illuminable elements (12) also extend vertically.

Gray, Masotti, and Picado do not disclose expressly the transmitters and/or receivers extending vertically alongside the illuminable elements on a second side of the device.

The particular placement of an element was held to be obvious. In re Kuhle, 526 F. 2d 553, 188 USPQ7 (CCPA 1975).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange expressly the transmitters and/or receivers of Gray, Masotti, and Picado, such that they extended vertically alongside the illuminable elements on a second side of the device, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been

motivated to rearrange the transmitters and/or receivers and the illuminable elements for the purpose of providing a detection zone that covers a greater vertical length and leaves little area that is not being used for detection purposes.

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A), Masotti (WO 007/77447 A1), and Picado (US 5,149,921 A), and further in view of Bolucaner (US 5,142,152 A).

Regarding claim 39, Gray and Masotti do not disclose expressly the common carrier structure being a channel member.

Picado teaches an infrared intrusion detection system including a common carrier structure (64; Figure 4A) for emitters and receivers (col. 8, lines 38-65) that is a channel member (Figure 4A).

At the time, the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray and Masotti such that the common carrier structure was a channel member as taught by Picado so as to offer additional protection to the illuminating elements and the transmitters/receivers.

Gray teaches the infrared elements (13) and the illuminable elements (12) extending vertically (vertically).

Gray, Masotti, and Picado do not disclose expressly a barrier member.

Bolucaner teaches a sliding door sensor including a barrier member (col. 2, lines 62-65) that is interposed between illuminable elements (25, IR emitters; col. 2, lines 50-54) and infrared elements (IR receivers, 26; col. 4, lines 62-65).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray, Masotti, and Picado by utilizing a barrier member

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between illuminable elements and infrared elements as taught by Boiucaner in order to avoid interference which may result in a trigger not being detected or a false trigger being detected.

Gray, Masotti, Picado, and Boiucaner do not disclose expressly the illuminable elements and the infrared elements extending alongside each other.

The particular placement of an element was held to be obvious. In re Kuhle, 526 F. 2d 553, 188 USPQ7 (CCPA 1975).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the illuminable elements and the infrared elements of Gray, Masotti, Picado, and Boiucaner since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the illuminable elements and the infrared elements for the purpose of producing a detection zone that covers a greater vertical length and leaves little area that is not being used for detection purposes.

5. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A) and Masotti (WO 007/77447 A1) and further in view of Reynolds et al. (US 2006/0243740 A1).

Regarding claim 40, Gray and Masotti do not disclose expressly the at least one illuminable element including circuitry that is positioned so as to be isolated against interference from circuitry utilized by the infrared transmitter elements.

Reynolds et al. teaches a device including an infrared sensor (42); and associated circuitry that is isolated against interference from other circuitry (paragraph 57).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray and Masotti such that the circuitry was isolated against interference from other circuitry as taught by Reynolds et al. in order to avoid a false trigger or avoid missing an actual trigger.

6. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A), Masotti (WO 007/77447 A1), and Picado (US 5,149,921 A) and further in view of Nakamori (EP 08259156).

Regarding claim 41, Gray, Masotti, and Picado, do not disclose expressly drive circuitry configured to cause some of the at least one illuminable elements to flash as an indication that the door is closing or is about to close.

Nakamori (EP 08259156) teaches an elevator including drive circuitry (not explicitly stated, but some type of circuitry must be driving the flashing) configured to cause at least one illuminable elements to flash as an indication that the door is about to close (Constitution of the Abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray, Masotti, and Picado such that flashing of the illuminable elements as taught by Nakamori was provided for the purpose of visually warning a user of danger.

7. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A) and Masotti (WO 007/77447 A1) and further in view of McDermott (US 5,161,879 A).

Regarding claims 42 and 43, Gray and Masotti do not disclose expressly one or more of the illuminable elements comprising a length of electroluminescent wire.

McDermott teaches a flashlight and further teaches the LED light source (63) being replaceable with an electroluminescent type (col. 10, line 68).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray and Masotti such that the one or more illuminable elements was electroluminescent as taught by McDermott since it is well known that that electroluminescent light sources are easily substituted for LEDs and may be used for specific applications.

8. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 4,794,248 A) in view of Trett (US 5,420,430 A).

Regarding claim 46, Gray teaches an edge-device illuminable element comprising: at least one localised source of light (12 and 22) and a light-emitting surface (surface of source that light exits out of).

Gray does not disclose expressly each illuminable element being itself elongated in the direction of elongation of the array, and subsequently the illuminable elements being arranged substantially end-to-end.

Masotti teaches a detection apparatus including the use of an elongated light source (1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the illumination sources of Gray elongated as taught by Masotti for the purpose of covering more surface with the illumination source.

Gray does not disclose expressly a light-spreading lens and a light diffuser for diffusing the spread light.

Trett teaches a detection system for detecting obstruction in doorways including an infrared emitter (2) and an infrared detector (8) and further teaches a light-spreading lens and a diffuser (col. 4, lines 48-50).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Gray such that a light-spreading lens and a diffuser as taught by Trett were including for the purpose of creating a more uniform spread of light.

Gray and Trett do not disclose expressly the light-spreading lens in one axis being cylindrical with an elliptical outer curvature and an inner curvature such that light is constrained to leave the lens with a generally equal light intensity at all points on the outer curvature.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the light-spreading lens of Gray and Trett, since it has been held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in the art when the change in shape is not significant to the function of the combination. Further, one would have been motivated to select the shape of a cylinder with an elliptical outer curvature for the purpose of creating a uniform light output, the uniformity aids in more accurate detection of triggers. See *In re Dailey*, 357 F. 2d 669, 149 USPQ 47 (CCPA 1966).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is 571-272-6007. The examiner can normally be reached on M-F 8am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MZ
/Mary Zetti/
/Sharon E. Payne/
Primary Examiner, Art Unit 2875